

# **CIRCUIT AND METHOD FOR INPUT SIDE IMPEDANCE MATCHING OF A POWER AMPLIFIER IN AN ELECTRONIC DEVICE**

## **Abstract**

A circuit and method for input side impedance matching of a power amplifier  
5 in an electronic device. Specifically, the present invention provides an impedance  
transformer network that includes a negative resistor in series with a bondwire  
inductor. The network is placed in parallel with a signal source and synthesizes the  
source side impedance at the input of the power amplifier. The desired impedance is  
synthesized by selecting an appropriate value for the negative resistor and setting the  
10 reactance of the inductor equal to the capacitance of the electronic device at a  
required frequency of operation.